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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stephen Ma

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20575

7590

01/26/2006

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EXAMINER

HO, DUC CHI

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/735,718

Applicant(s)

MA ET AL.

Examiner

Duc C. Ho

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-14 is/are allowed.
- 6) ☒ Claim(s) 1,2,8,15,16 and 22 is/are rejected.
- 7) ☒ Claim(s) 3-7 and 17-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11-18-05
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 8,15-16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in figure 2 of the instant application, in view of Mazzola et al. (US 5,796,732-IDS record), hereinafter referred to as Mazzola.

Regarding claim 1, the admitted prior art in figure 2 of the instant application discloses a high-level block diagram of a Network Access Server.

*using a first processor* (the FE 58-fig.2 performs traditional routing tasks for the received packet by stripping the L2 Ethernet header of the receive frame, and looks up the next

hop for the IP packet, see the disclosure of the instant application at page 10, lines 11-15) *in the network access server to perform a routing table lookup for a received packet;*

The admitted prior art in figure 2, however, does not disclose expressly determining, from the result of the routing table lookup, (1) a routing table identifier and a second processor responsible for processing the received packet, the second processor selected from a plurality of forwarding processor in the network access server, (2) passing the identifier and the received packet to the second processor, and (3) the second processor determines the location of the routing information in the routing table.

One skill in the art would recognize the advantage of obtaining a routing table identifier which identifies a destination address for the received packet, and a second processor responsible for processing the received packet by determining the location of the information from its identified destination address in order to increase performance of the network access server by providing the NAS with more than one forwarding processor.

Mazzola discloses architecture for an expandable transaction-based switching bus. The forwarding engine 125 is located on the supervisor card 120-fig.1 and comprises an encoded address recognition logic (EARL) circuit 300 coupled to a local target logic (LTL) circuit 350 over a result bus 375. Functionally, the EARL 300 executes all forwarding decisions for the switch 100, while the LTL 380 implements the forwarding decisions by selecting ports as destinations for receiving data frames transferred over the switching bus 110. As can be seen in FIG. 1, the LTL mechanism may be distributed among the cards of the switch via the result bus 375, see col. 3, lines 46-61.

The EARL 300-fig. 3 (corresponding to a second processor) includes a forwarding table 310 (corresponding to a routing table identifier), and a controller 304-fig. 3, which parses the frame to extract the destination address producing unique index value 380, and the index value is mapped to a predetermined port as a destination of the frame, see col. 5- line 48 to col. 6-line 16 (corresponding to (1), (2), and (3)).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the APA with Mazzola.

The suggestion/motivation for doing so would have been to increase performance of the network access server by providing more than one forwarding processor.

Therefore, it would have been obvious to combine Mazzola with the APA to obtain the invention as specified in claim 1.

Regarding claim 2, please see the rejection of claim 1. The FE58-fig.2 of the APA (corresponding to the first processor) strips the L2 Ethernet header and adds a new L2 header to the received packet. The received packet is sent to the second processor EARL 300-fig.3 of Mazzola. And the L2 information associating with a destination address is extracted by the EARL300-fig. 3.

Regarding claim 8, please see the rejection of claim 1. The forwarding table 310-fig. 3 of Mazzola (corresponding to routing table identifier) maps the destination address of the frame to the unique index of a port to indicate that the EARL300-fig.3 (corresponding to the second processor) should route the received data to.

Regarding claims 15-16, and 22, these claims have similar limitations as claims 1-2, and 8, respectively. Therefore, they are rejected under the APA-Mazzola for the same reasons set forth in the rejection of claims 1-2, and 8.

***Allowable Subject Matter***

4. Claims 9-14 are allowed.
5. Claims 3-7, and 17-21 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2665

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read "Duc Ho", with a stylized flourish at the end.

Duc Ho

1-20-06